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Year to year variations in monthly means of radiation and illumination

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Combining the sample decade of mean monthly sunshine hours (Ag Mem 34) and the formulae for radiation and illumination (Ag Mems 733 and 734), sample decades were found to be approximately:-

Percentage of average

	Radiation	Illumination	Sunshine	
			Oct-March	April-Sept
1	84	85	59	66
2	89	90	74	78
3	92	93	82	84
4	95	96	89	90
5	98	98	95	96
6	101	101	101	101
7	104	103	108	108
8	107	106	117	115
9	111	110	127	123
10	119	118	148	139

No significant seasonal variation could be found for radiation and illumination.

A test on 10 year's data at Eskdalemuir showed:-

June	Radiation: Mean 446.	Mean difference actual-sample decade	9.7 (2.1%)
	Illumination: Mean 520.		8.4 (2.0%)
December	Radiation: Mean 35.		2.3 (6.8%)
	Illumination: Mean 40.		1.9 (4.9%)

the main source of error lying in sample years 1 and 10, which is only to be expected.

Any comments or suggestions on this paper should be referred to the author.

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